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city, 305-390 (KR). **KWON, Dong-Seung** [KR/KR]; Expo Apt.204-1304, Jeonmin-dong, Yuseong-gu, Daejeon-city, 305-390 (KR). **CHOI, Jin-Ho** [AU/AU]; 26, Holland Place Dundas, NSW, 2117 (AU).

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(74) **Agent: YOU ME PATENT AND LAW FIRM**; Seolim Bldg., 649-10, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).

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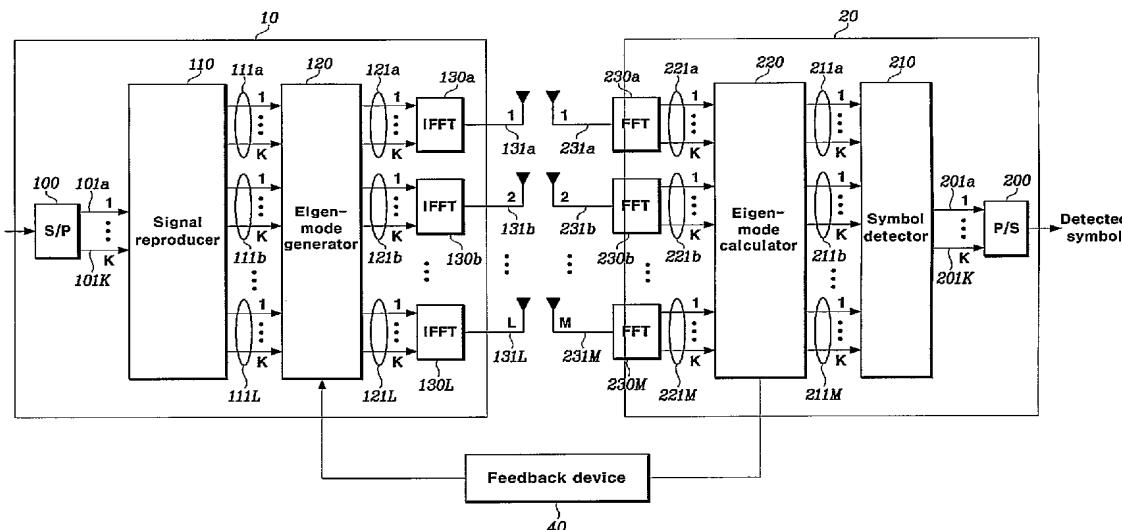
(71) **Applicant (for all designated States except US): ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejeon, 305-350 (KR).**

(72) Inventors; and

(75) **Inventors/Applicants (for US only): CHOI, In-Kyeong [KR/KR]; Mokryun Apt. 304-1102, Dunsan-dong, Seo-gu, Daejeon-city, 302-120 (KR). KIM, Seong-Rag [KR/KR]; Expo Apt. 204-601, Jeonmin-dong, Yuseong-gu, Daejeon-**

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(54) Title: A MIMO-OFDM SYSTEM USING EIGENBEAMFORMING METHOD



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(57) Abstract: Disclosed is a MIMO-OFDM system, wherein the transmitter comprises a serial/parallel converter for converting continuously inputted symbols of the number of subcarriers to K parallel signals; a signal reproducer for reproducing K parallel signals by the number of transmit antennas L an eigenmode generator for generating eigenbeam of the reproduced signals outputted from the signal reproducer at each subcarrier, on the basis of Nf eigenbeam forming vectors which are fed back long-term and information of a best eigenbeam forming vector at each subcarrier which is fed back short-term, through the feedback device; and a plurality of inverse Fourier converters for receiving the signals outputted from the eigenmode generator and generating an OFDM symbol.



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